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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/026,816 | 12/27/2001 | Masahiro Sekino | 217761US0SCIP | 1901 |

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EXAMINER

CHANEY, CAROL DIANE

ART UNIT PAPER NUMBER

1745

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/026,816

Applicant(s)

SEKINO ET AL.

Examin r

Carol Chaney

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,29 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-28,31 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Election/Restrictions

Applicant's election with traverse of Group I, batteries and electrolytes, and species vii, vinyl ethylene carbonate in Paper No. 9, filed 05 November 2003 is acknowledged. The traversal is on the ground(s) that the inventions of Group I and Group II are not unrelated, and that the species identified have not been shown to be patentably distinct. This is not found persuasive because the record does not show a relationship between a battery with a specific casing and specific charging and discharging properties, and electrolytes and batteries with specific components as the organic solvent. Although the two inventions may recite the word "battery" in their claims, the inventive concepts are unrelated.

With regard to the election of species requirement, one of ordinary skill in the art will recognize, based upon their structures, that the different species listed are not analogous or homologous compounds, and thus are considered patentably distinct.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 and 25 are rejected under 35 U.S.C. 102(a) as being anticipated by Kotado et al., JP 2001-126761.

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Kotado et al. disclose nonaqueous secondary lithium ion batteries. In a preferred embodiment, an electrolyte having vinyl ethylene dissolved in 97% by weight of a solvent formed of a 1:1 mixture of ethylene carbonate and gamma-butyrolactone is disclosed. The electrolyte contains 1 M/liter of LiPF_6 as a solute. (See paragraph 34.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-7, 9-24, 26-28, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotado et al. in view of Sonozaki et al., US Patent 6,048,639.

As discussed above, Kotado et al. teach applicants' invention essentially as claimed, with the exception that Kotado et al. do not specifically teach containing batteries with casings having walls less than 0.3 mm in thickness. Sonozaki et al. disclose thin, sealed batteries. In a preferred embodiment, the battery casing is 100 microns (0.1mm) thick, and is formed as a polypropylene/aluminum/polypropylene Laminate. (Column 7, lines 35-51.) The battery casing system taught by Sonozaki et al. is excellent in storage life and reliability because the construction of the cell case is free from the deterioration of cell performance caused by corrosion of sectional surfaces..." (See Sonozaki et al., column 1, line 66-column 2, line 5.) Thus, it would have been obvious to one of ordinary skill in the art to use the casing disclosed by

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Sonozaki et al. to house the battery and electrolyte taught by Kotado et al. in order to obtain a battery "excellent in storage life and reliability".

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Iwamoto et al., US 20020039677A1

Hatazaki et al., US 20010038949 A1

Mita et al., US Patent 6,315,918 B1

disclose nonaqueous electrolytes which include vinyl ethylene carbonate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol Chaney whose telephone number is (571) 272-1284. The examiner can normally be reached on Mon - Fri 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1700.



Carol Chaney
Primary Examiner
Art Unit 1745